



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,226	02/27/2002	Y. Tom Tang	PF-0741 USN	9871

22428 7590 06/16/2005

FOLEY AND LARDNER  
SUITE 500  
3000 K STREET NW  
WASHINGTON, DC 20007

EXAMINER

CARLSON, KAREN C

ART UNIT PAPER NUMBER

1653

DATE MAILED: 06/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/070,226

**Applicant(s)**

TANG ET AL.

**Examiner**

Karen Cochrane Carlson, Ph.D.

**Art Unit**

1653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-35 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

Art Unit: 1653

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Groups 1-24, claim(s) 1, 2, 16, and 17, drawn to polypeptide having SEQ ID NO: 1-7, 9, 10, 13-21, 23-27 or 28, respectively.

Groups 25-48, claim(s) 3-7, 9, 11, 29, 30, and 33, drawn to polynucleotide encoding polypeptide having SEQ ID NO: 1-7, 9, 10, 13-21, 23-27 or 28, respectively.

Groups 49-72, claim(s) 8 and 31, drawn to transgenic organism comprising polynucleotide encoding polypeptide having SEQ ID NO: 1-7, 9, 10, 13-21, 23-27 or 28, respectively.

Groups 73-96, claim(s) 10, drawn to antibody against polypeptide having SEQ ID NO: 1-7, 9, 10, 13-21, 23-27 or 28, respectively.

Groups 97-120, claim(s) 13-15, drawn to method for detecting polynucleotide using polynucleotide encoding polypeptide having SEQ ID NO: 1-7, 9, 10, 13-21, 23-27 or 28, respectively.

Groups 121-144, claim(s) 18, drawn to method of treatment by administering polypeptide having SEQ ID NO: 1-7, 9, 10, 13-21, 23-27 or 28, respectively.

Groups 145-168, claim(s) 19, drawn to a method of screening agonists of polypeptide having SEQ ID NO: 1-7, 9, 10, 13-21, 23-27 or 28, respectively.

Groups 169-192, claim(s) 20, drawn to an agonist of polypeptide having SEQ ID NO: 1-7, 9, 10, 13-21, 23-27 or 28, respectively.

Groups 193-216, claim(s) 21, drawn to a method of treatment by administering the agonist of polypeptide having SEQ ID NO: 1-7, 9, 10, 13-21, 23-27 or 28, respectively.

Groups 217-240, claim(s) 22, drawn to a method of screening antagonists of polypeptide having SEQ ID NO: 1-7, 9, 10, 13-21, 23-27 or 28, respectively.

Groups 241-264, claim(s) 23, drawn to an antagonist of polypeptide having SEQ ID NO: 1-7, 9, 10, 13-21, 23-27 or 28, respectively.

Groups 265-288, claim(s) 24, drawn to a method of treatment by administering the antagonist of polypeptide having SEQ ID NO: 1.

Art Unit: 1653

Groups 289-312, claim(s) 25, drawn to a method for screening compounds that bind to polypeptide having SEQ ID NO: 1-7, 9, 10, 13-21, 23-27 or 28, respectively.

Groups 313-336, claim(s) 26, drawn to a method for screening compounds that modulate the activity of polypeptide having SEQ ID NO: 1-7, 9, 10, 13-21, 23-27 or 28, respectively.

Groups 337-360, claim(s) 27 and 34, drawn to a method of screening for compounds that alter the expression of polynucleotide encoding polypeptide having SEQ ID NO: 1-7, 9, 10, 13-21, 23-27 or 28, respectively.

Groups 361-384, claim(s) 29 and 35, drawn to a method for assessing toxicity using a polynucleotide encoding polypeptide having SEQ ID NO: 1-7, 9, 10, 13-21, 23-27 or 28, respectively.

The inventions listed as Groups 1-384 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The polypeptide having SEQ ID NO: 1-7, 9, 10, 13-21, 23-27 or 28 is stated on page 3 of the specification to be polypeptides involved in cell differentiation, and designated CDIFF-1, CDIFF-2, etc. In Table 2 at page 73 of the specification, SEQ ID NO: 1 is stated to be homologous to ganglioside-induced differentiation associated protein-1, SEQ ID NO: 2 is homologous to erythroid differentiation related factor, SEQ ID NO: 3 to homologous to the SOUL protein, SEQ ID NO: 4 to REX-3, SEQ ID NO: 5 to spermatid nuclear transition protein, and so forth – see Table 2. Therefore, Claim 1, for example, is drawn to a series of unrelated polypeptides having different structure and function.

SEQ ID NO: 1, then, does not share a special technical feature with polypeptides having SEQ ID NO: 2-7, 9, 10, 13-21, 23-27 or 28, respectively. Further, SEQ ID NO: 1 is not novel because, for example, it would comprise a biologically active fragment of a known protein, that is, ganglioside-induced differentiation associated protein-1, or glycine, which is also biologically active.


Art Unit: 1653

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen Cochrane Carlson, Ph.D. whose telephone number is 571-272-0946. The examiner can normally be reached on 7:00 AM - 4:00 PM, off alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Jon Weber can be reached on 571-272-0925. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

\*\*\*

  
**KAREN COCHRANE CARLSON, PH.D**  
**PRIMARY EXAMINER**